<b>Work Order</b> <i>April 10, 2013 10:</i>				*992	48 <u>9</u> *					:*	Page 1	
Revision ID:	3048-1 oubler		· · · · · · · · · · · · · · · · · · ·	Accept	*N900	040	100	)*	Setup Sta	1 71	S1* S2*	
Start Date: 4/ Required Date: 4/ Reference:		eq'd Qty: 4.00	*4* *4*		Cust Item :	ID:					e.	
Approvals: P	Process Plan:	CL_	Date: 13/04	//loTooling: SPC (Y/N):		ate:			Run Sta Sto	I <b>V</b> I	R1* R7*	
Sequence 12/ Work Center 10		scriptio		Ser 1)) Run Hours		k ugi #	Plan Code	Accept Qty	Reject Qty	Rojec Numbe.	amp	
Draw Nbr	Revision	Nbr		*								
D3048	Rev A2	<u> </u>		0.00								
*100* Waterjet FLOW CNC Waterjet 2024 .063		OW WATER JET  Memo  1-Cut as per  Deburr if ne	Dwg D3048 Dwg R cessary	0.00	<b>} 2</b> _ 2-			6		<del></del>	<u>Im 13-4-</u>	-11
110	QC2	2- Inspect parts off m	achine FAI/FAIB	0.00								
*110* QC Quality Control		Memo		0.00						. <u> </u>	Jm.13-4-	- 15
*120	QC8	3- Inspect parts - seco	and check	0.00				6				
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NCR:	Yes /	No	WORK ORDER NON-CON

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NCR:	⁄es	/ No				WORK ORDER NON-C	CONF	ORI	MANCE / UP	DATE	QA Closed:	Date	:		
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Part N	•		<del> </del>			Rework Scrap Use-as-is		Machining Small Fat Thermoforming Finishing		Crosstube Small Fab Finishing	Water Je Prod. Eng. Coor Rec/Store/Packaging		Engineering Quality Other		
NCR N	NCR No.					Work Order Update		Large Fab Composite			Supplier				
Root					Descri	ption of work order update	Initi	ial	Ac	tion	Sign &				
Cause		Date	Step	Qty	(	or Non-conformance	Chief	Eng	Desc	cription	Date	Verification	QC Inspector		
Doc/Data															
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	-	Cracks	or Concer	THE TO	o',  -	Broken/Damaged '	<b></b>		ion Incomplete		Part Incorre	) <del></del>	Weld		
		l	Crimned		-	Burrs	-	-	ions Incomplete/	/Unclear	Part Lost/M	<del> </del>	Wrong Stock Pulled		
					Contamination	_		enance		Part Moved					
				Countersink	$\vdash$	islabe			Positioned V	Vrong					
	-	Inspection		Tube		Cut Too Short	$\vdash$	isread		<b></b>	Power Loss/		Other		
		Ripples in				Drill Holes	$\vdash$	fset		L	<u>.</u>	- L			
l <del>  </del>				Drawing	<del></del>		Calibration								
				Finish	<b>⊢</b> —		Sequence								
Wave/Twist in Tube				Folio	Пои	ıtside	Dimensions								

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Quality Control

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NCR: Ye	es / No				WORK ORDER NON-	CON	IFORN	MANCE / UPD	ATE	OA Charada	Data	
	· · · · · ·						·	237000		QA Closed:	Date:	
Work Order	··				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	!
WORK Oraci	•				Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part No	o.	•			Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
				<del></del>	Use-as-is	1	Therm	noforming	Finishing	Rec/Stor	e/Packaging	Other
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	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre No	ot Concei	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	ion Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/U	Inclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	enance		Part Moved		
	Heat Trea	it			Countersink		Mislabe	eled		Positioned V	Vrong	
Γ	Inspection	n Strip in	Tube		Cut Too Short		Misread	· · ·		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes		Offset		<u></u>	_		
<u> </u>	Torque Waves in Extrusion Drawing					Out of Calibration						
Turning Sequence Finish					Out of Sequence							
-	Wave/Twist in Tube Folio					Outside	Dimensions					

DQA:

Date:

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Work Orde			*99489*										
Revision ID: Item Name:	D3048-1 Doubler			Accept	*	V9NN	<b>04</b> 0	100	ገ*	Setup	Start Stop	1/1	S1* S2*
Start Date: Required Date: Reference:	4/10/13 4/15/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*			Cust Item I Customer:	D:		·		,		
Approvals:		lan:		Tooling: SPC (Y/N):			ate:		]	Run	Start Stop	1/7	R1* P2*
Sequence HW Work Contc. 11 160	<b>)</b>	Operation  Description  Identify as per dwg & Sto	ock Location:	Set Tp/ Run Hours 0.00		Twol 10	Tool #	Plan Code	Accept Qty	Rej Qty		Roject Number	Stamp
*160* Packaging Packaging		Memo		0.00							<del></del>		

\*17**0**\*

170

0.00

0.00 Memo

QC21- Final Inspection - Work Order Release

Quality Control

W/O already control service son about.

												DQA:	Date	·	
NCR:	Yes	/ No					WORK ORDER NON-C	100	NFORM	MANCE / UPI	DATE		5 .		
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Vork Ord	or.						DISPOSITION		AGAINST DEPARTMENT/PROCESS						
VOIK OIG	Cr.						Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering	
Part I	Vo.					ı	Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality	
	,						Use-as-is		Thern	noforming	Finishing	Rec/Stor	e/Packaging	Other	
NCR I	۷o.						Work Order Update	]		Large Fab	Composite		Supplier		
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Cause	F	Date	Step	Qty		0	r Non-conformance	C	ief Eng	Descr	ipuon	Date	vermeation	QC IIISPECTOR	
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Landi	$\overline{}$	Bending			Г		<b>General</b> Bend	_	Grain			Ovalized	Г	Pressure/Forced	
	⊢	Centre No	nt Concer	ntric to	0/5		BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure	
		Cracks	or concer	nene to	), s		Broken/Damaged		1	ion Incomplete	<del> -</del>	Part Incorre	<b>⊢</b>	Weld	
		Crushed/0	Crimped		ŀ	$\overline{}$	Burrs		1	ions Incomplete/	Unclear	Part Lost/Mi		Wrong Stock Pulled	
		Cuffs	Contamination						Mainte	·		Part Moved	_		
		Heat Treat Countersink					Countersink		Mislabe	eled		Positioned V	Vrong	·	
	Inspection Strip in Tube Cut Too Short						Misread	d		Power Loss/	Surge	Other			
	Ripples in Bend Drill Holes						Offset								
	Torque Waves in Extrusion Drawing						Out of Calibration								
	Turning Sequence Finish						Out of Sequence								
	Wave/Twist in Tube Folio						Folio		Outside Dimensions						

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Wave/Twist in Tube

Page 1

Work Order ID:

99489

Parent Item:

D3048-1

Parent Item Name:

Doubler

**Start Date:** 4/10/13

123701

Required Date: 4/15/13

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP: A 02.11.19 New issue KJ/RF

IPP Rev:B Now on Waterjet 06-10-15 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.063 2024-T3 .063 sheet		Purchased	No			100	sf	143.3400	3.4583	14 <del>.36</del> 1263			Jm13-4-1
				<b>Location</b>		Loc Qty	Lo	c Code					
				MATena		145.5+			. Market extensions compa				
				- 001	18	٠.							
				14119	9 j	21.5							

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123096

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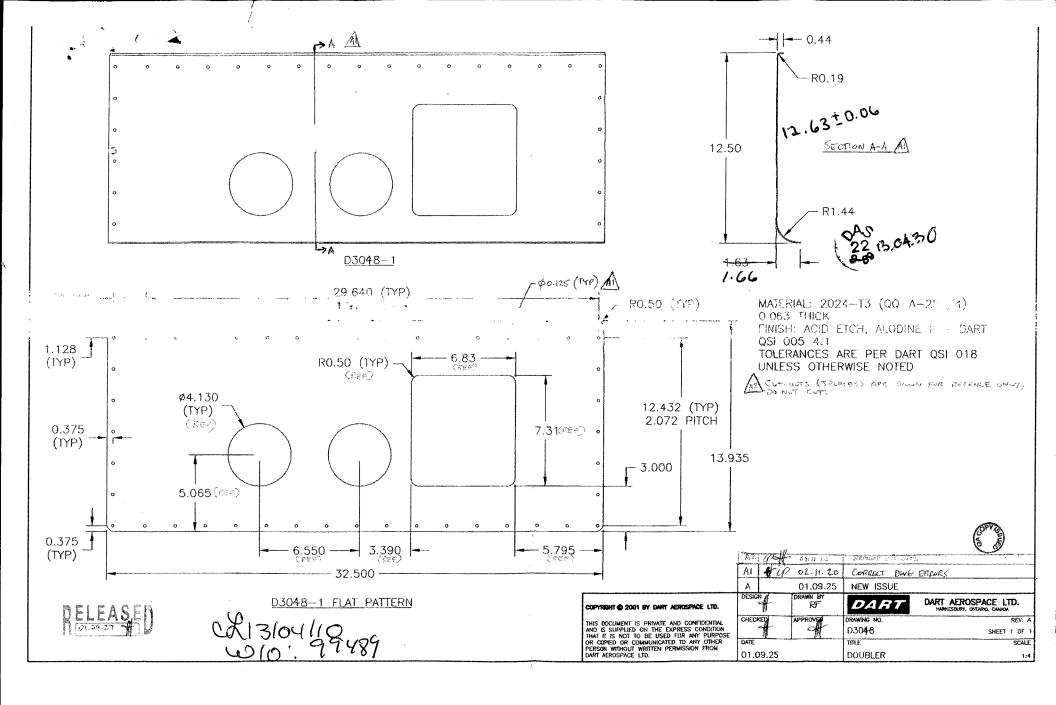
											,	DQA:	Date:	
NCR:	Yes	/ No					WORK ORDER NON-	COI	NFORN	ANCE / UP	DATE	0.00	D-1	
					<del> </del>							QA Closed:	Date:	The state of the same of the s
Vork Ord	er:						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part I	•						Rework Scrap		ı	Skid-tube Machining	Crosstube Small Fab	-1	Water Jet d. Eng. Coor.	Engineering Quality
NCR I	No.				<del></del>		Use-as-is Work Order Update			Large Fab	Finishing Composite	Rec/Stor	re/Packaging Supplier	Other
Root					Desc	ript	ion of work order update		nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or	Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
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	Ш	Torque W	aves in E	Extrusion	۱	_	Drawing	<u> </u>	1	Calibration				
	1	Turning C.	oguonco		1	l c	inich	1	I Out of S	Cognopce				

Outside Dimensions

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Wave/Twist in Tube

Folio



										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-O	CONFC	)RN	MANCE / UPDATE	ΩΔΩ	losed:	 Date:	
			· · · Ne		DISPOSITION			AGAINST		V AMOR II. AMOR II	Parketter and the second	
Work Orde	r:					,					·	, <del></del>
	Part No.			١.	Rework Scrap Use-as-is Work Order Update	Th	Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing  Large Fab Composite				Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
NCK N					Work Order Opdate	J		Large Fab Composite			Supplier_	
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Initia Chief E	- 1	Action Description		n & ate	Verification	QC Inspector
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Operator												
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	Cracks			<u> </u>	Broken/Damaged			on Incomplete	_	Incorre		Weld
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	Ripples in Bend Drill Holes				=	Off		5 19				
	Torque Waves in Extrusion Drawing					Out of Calibration						
1	Turning Sequence				Finish	Out	Out of Sequence					

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Wave/Twist in Tube

Folio

DART AEROSPACE LTD	Work Order:	99489
Description: Doubler	Part Number:	D3048-1
Inspection Dwg: D3048 Rev: A2		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article	Prototype
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Drawing	Tolerance	Actual	Accept	Reject	Method of	Comments		
Dimension		Dimension		,	Inspection			
Ø0.125	+0.004/-0.001	0.136,	_		V	Itmoi		
0.375	+/-0.010	0.382"	_		V			
0.375	+/-0.010	0.381"	-		ν			
1.128	+/-0.010	1.135"	-		V			
- 2.110	<del>↓/-0-010</del>				V			
2.072	+/-0.010	2.074"	-		ν			
12.432	+/-0.010	12.432"	-		T	Ikmolo		
13.935	+/-0.010	13.935"	-		T			
1.976	+/-0.010	1.976"	_		V			
29.640	+/-0.010	29.640	_		T			
32.500	+/-0.010	32.500	_		7			
	<u> </u>							
			240					

Measured by: Tm	Audited by:	Prototype Approval:	N/A
Date: 13-4-11	Date: 13 4 11	Date:	N/A

Rev	Date	Change	·	Revised by	Approved
Α	08.11.27	New Issue		KJ/EC	7

			s	-7	÷					•	DQA:	, ' . Date:	S S S S S S S S S S S S S S S S S S S
NCR: Y	'es	/ No		-	. •	WORK ORDER NON	-coi	VFORI	MANCE / UPI	DATE	QA Closed:	Date:	
Maril Ondani						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Work Order:  Part No.  NCR No.			Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing			Small Fab Finishing	-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other			
Root	Т				Descri	ption of work order update	$\top$	Initial	Act	tion	Sign &		
Cause	ļ	Date	Step	Qty		or Non-conformance	Cr	nief Eng	Desci	ription	Date	Verification	QC Inspector
oc/Data quip/Tooling perator Material etup Other crocess upplier training													
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Landir	ing Gear  Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend Torque Waves in Extrusion Turning Sequence			Tube	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes Drawing Finish		Instruct Mainte Mislabe Misrea Offset Out of	ion Incomplete tions Incomplete/ enance eled d	Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other	

Outside Dimensions

Wave/Twist in Tube

Folio